

## AerTrim® BD100 Heat Vacuum Application

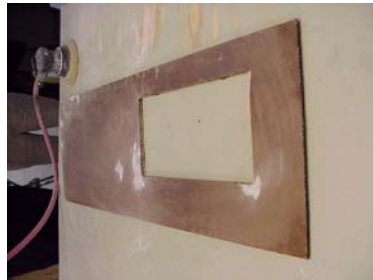
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AerTrim® BD100 has been successfully installed on both flat and single curvature panels using a contact adhesive or Schneller's heat activated adhesive system (HA211). The following procedures relate to an HA211 application on a 757 dado panel using heat vacuum application equipment.

### Installation Guidelines

1. As with any recovery work, the old decorative must be removed and the panel repaired for any damage.



2. The surface of the panel to be covered must be clean and free of all dirt, grease, oil, or other contaminants. For best results, the panel should be dry and wiped clean with alcohol or Methyl Ethyl Ketone (MEK).



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3. A primer adhesive can be used to improve adhesion of the decorative to the substrate. As seen below, Bostik 7132 + crosslinker Boscodur 24T is being brush applied to the entire surface of the dado panel. It is necessary to allow the primer to thoroughly dry before applying the decorative. Drying time will vary depending on environmental conditions.



4. The mold/support tool for a 757 dado panel is simple since this dado panel is a relatively flat panel. Spacers are added to the backside of the dado to ensure the panel is not damaged during the application process.

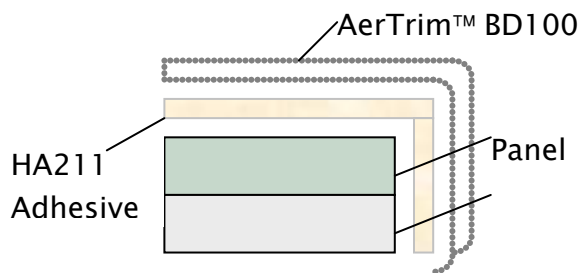


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5. The mold must be sufficient to support the panel during the application process. This dado panel will need to be wrapped along 3 of the 4 edges. Therefore, the mold is constructed to elevate the panel and to exactly fit the size of the dado panel. This will allow the decorative to form down the edges of the dado panel during the application, which will make the post-wrapping easier. The material is cut slightly larger than the overall size of the part to allow for wrapping material.



6. The mold is placed on the vacuum table (in an actual production scale set-up, more than one dado panel is recovered during one cycle). The decorative is attached to the dado panel to ensure the alignment is correct and remains correct during the application process. As shown below, this can be done with a heat resistant tape (or using a heat gun).

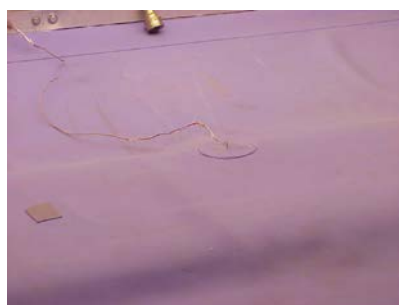


7. A silicone blanket is used as the diaphragm during this process. A thermocouple is used to record the temperature. The thermocouple is placed "in a pocket" on the blanket with a setpoint of 230°F (110°C). Correlation experiments have been performed to verify the temperature reading at this location relates to the actual glue line temperature. The Schneller HA211 adhesive system requires a temperature of 212°F (100°C), as measured at the glue line, to fully activate.

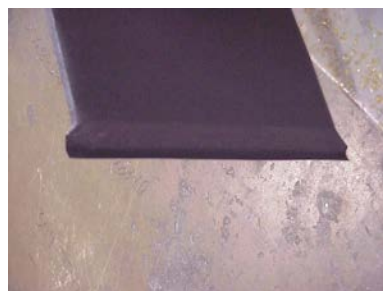
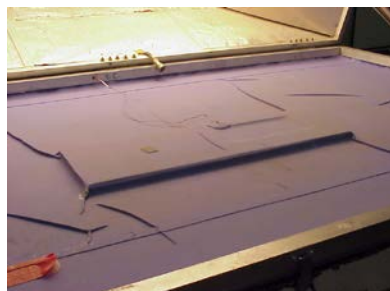
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8. The silicone rubber blanket is brought into position and locked, sealing it around the perimeter of the vacuum plate. The vacuum pump is started and adjusted to 1 inch of mercury, which draws the rubber blanket along with the AerTrim® BD100 laminate into contact with the panel. If a wrinkle appears, the vacuum should be removed.
- A radiant heat source is positioned to pass heat through the silicone blanket.
  - As the temperature reaches 230°F (110°C), gradually apply vacuum until a maximum of 10 (0.3 bar) inches of mercury is reached. This vacuum pressure is adequate due to the flat shape of a 757 dado panel.
  - Temperature is maintained between 212°F (100°C) and 230°F (110°C) for four minutes. The heat source is turned off, and the panel is allowed to cool down to <100°F (38°C).



As seen in the above pictures, during the application process, the AerTrim® BD100 started to wrap the edges. This is due to the panel being elevated and the mold being constructed to exactly fit the size of the panel.

9. After removing the part from the HVA, for this application, it is necessary to wrap three edges, flush cutting the remaining edge. A primer is brush applied to both the backside of the decorative and panel. Again, the Bostik 7132 & 24T is used as a primer adhesive. Approximately 1 inch of the BD100 is required to wrap this panel.



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10. A heat gun is used to re-heat the decorative, with the majority of the heat being applied to the backside. As the material is warmed, it becomes more pliable and easier to wrap. Hand pressure is used to contact the BD100 to the backside of the panel. Pressure must be maintained to keep the BD100 in contact with the panel as it cools.



11. Wrapping the panel is continued along all three edges of the panel. To complete the wrapping of this entire dado panel took approximately 15 minutes. All hardware can then be reattached to the dado panel to produce a finished part.

